Electronic Supplementary Material (ESI) for Biomaterials Science.

An Intelligent vancomycin-release system for preventing surgical site infections (SSIs) of bone tissue

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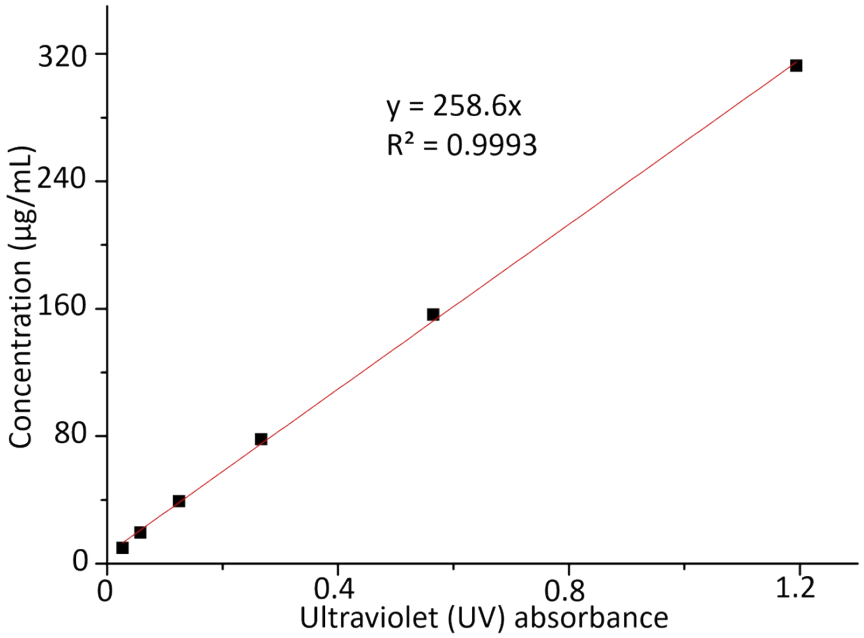

Figure s1. The standard curve of the absorbance associated with the concentration of VH at 280 nm.

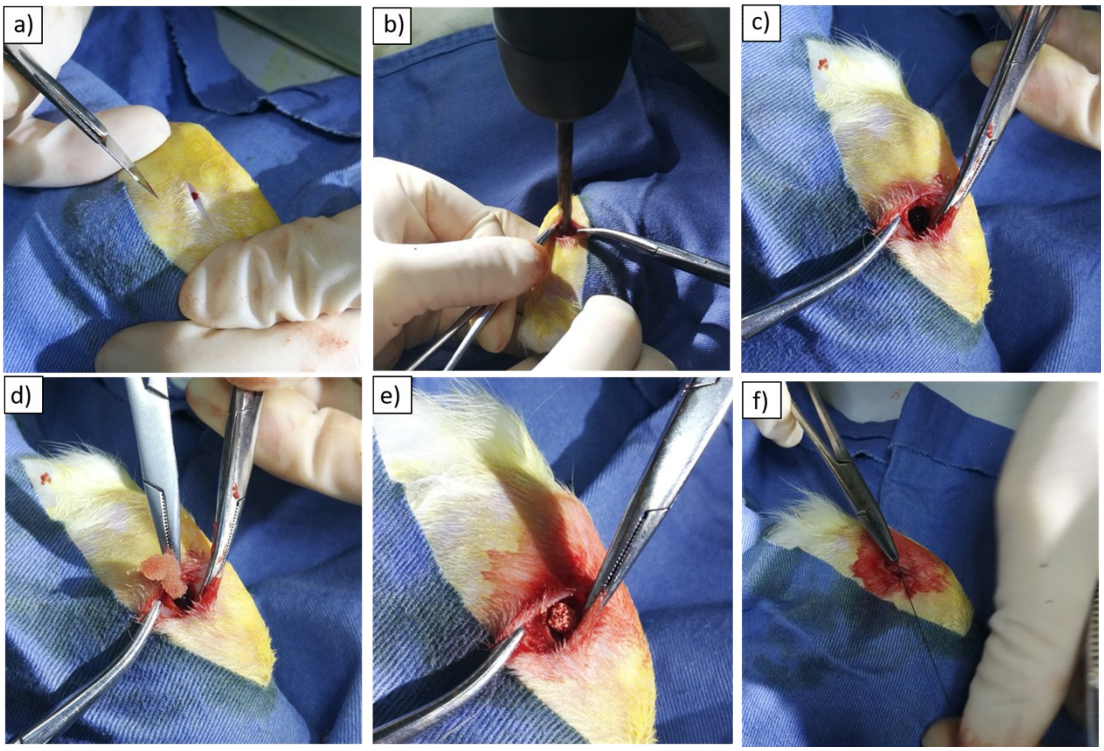

Figure s2. The procedure of surgery. a) Incision of skin. b) Drilling of femoral condyle. c) Exposure of surgical site. d) Implanting gelatin sponge containing *S. aureus*. e) Implanting a scaffold. f) Suturing incision.

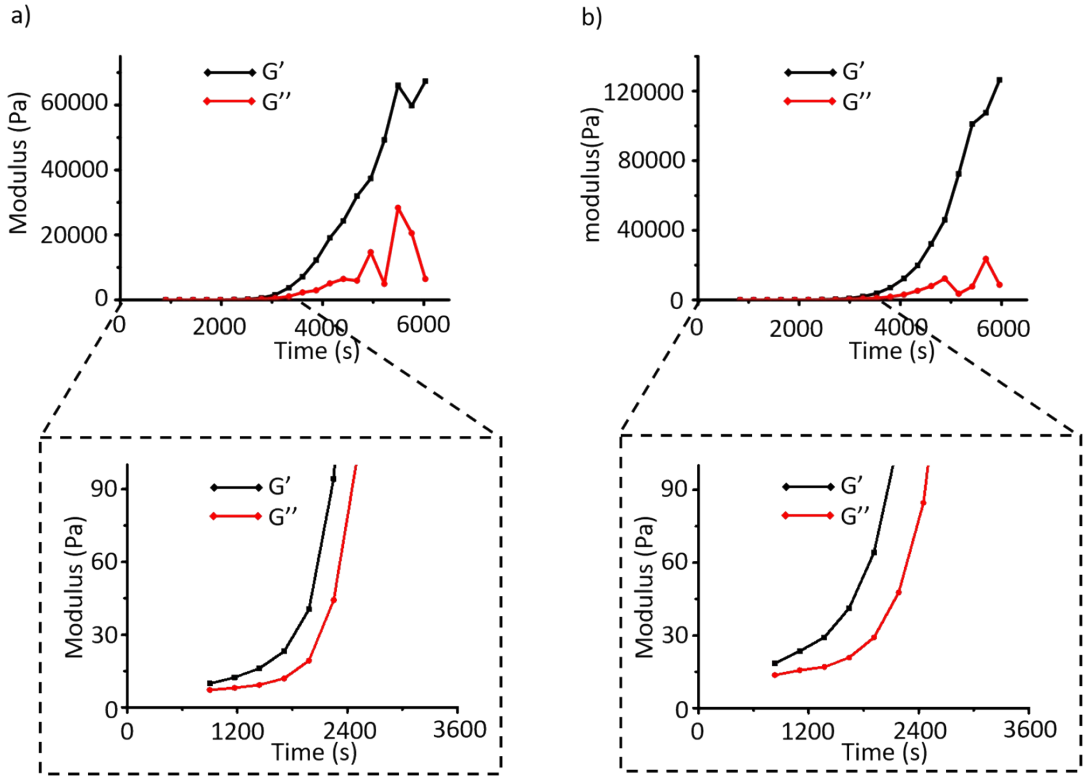

Figure s3. Thermosensitive phase transformation property of VH-HA-CS/β-GP. a)

Phase transformation of VH-HA-CS/β-GP containing 0.77% of HA at 37 °C. b) Phase transformation of VH-HA-CS/β-GP containing 1.4% of HA at 37 °C.

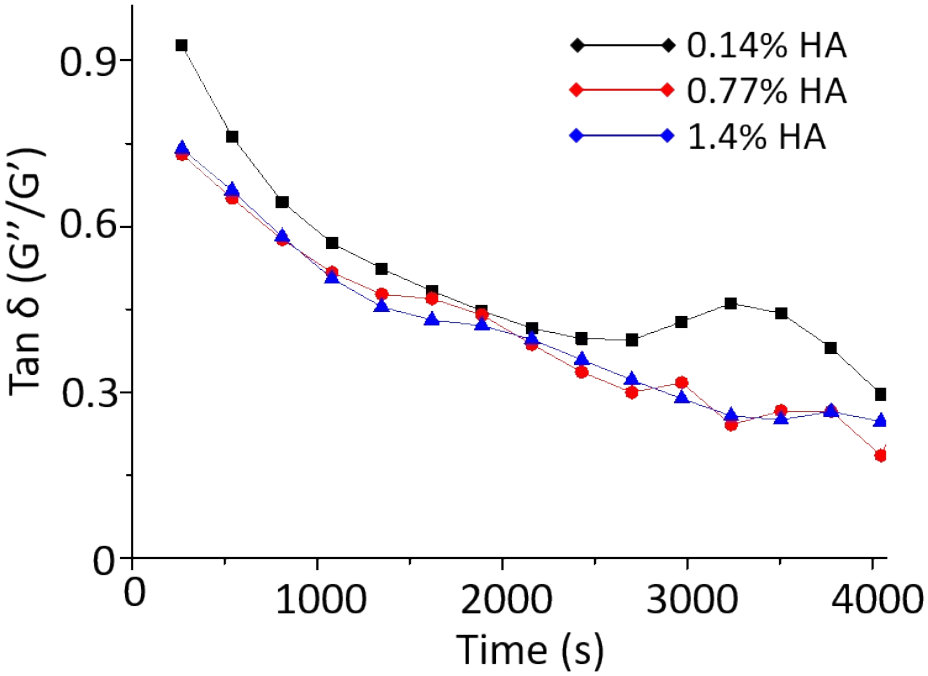

Figure s4. Tan δ of VH-HA-CS/β-GP at 37 °C. (The frequency of test: 1 Hz)

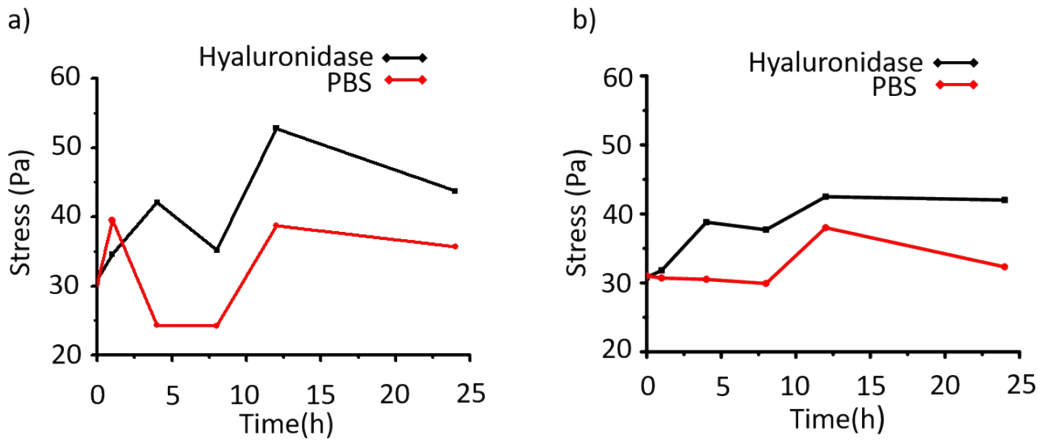

Figure s5. The elastic modulus of VH-HA-CS/β-GP gel incubated with hyaluronidase solution (hyaluronidase, m/v 16mg/mL, pH 5) and PBS respectively at 0, 1, 4, 8, 12 and 24 hours at 37 ^{o}C. a) Elastic modulus of VH-HA-CS/β-GP gel containing 0.77% of HA. b) Elastic modulus of VH-HA-CS/β-GP gel containing 1.4% of HA.

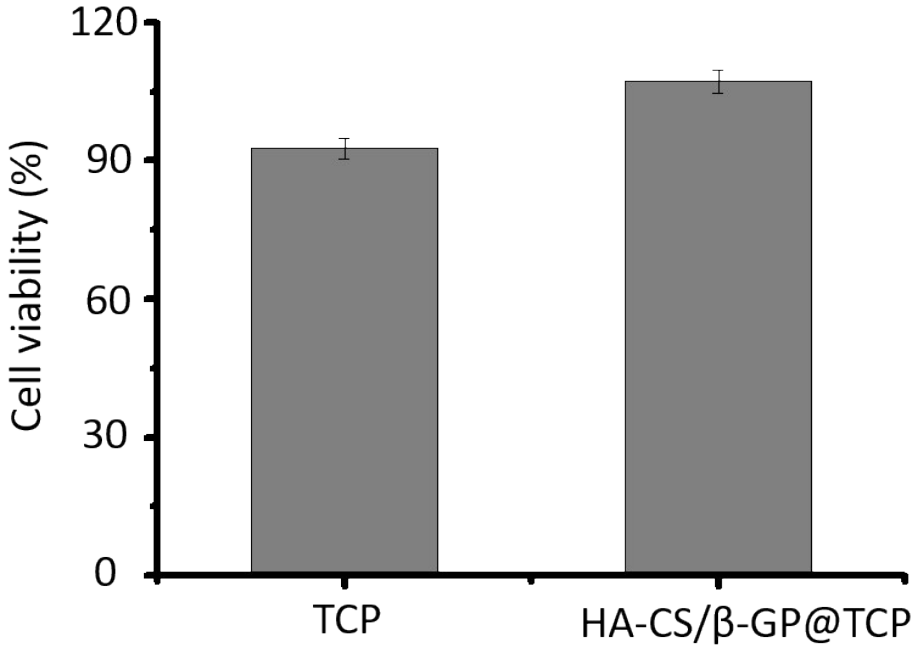

Figure s6. Cytotoxicity evaluation of HA-CS/β-GP@TCP and TCP scaffolds.

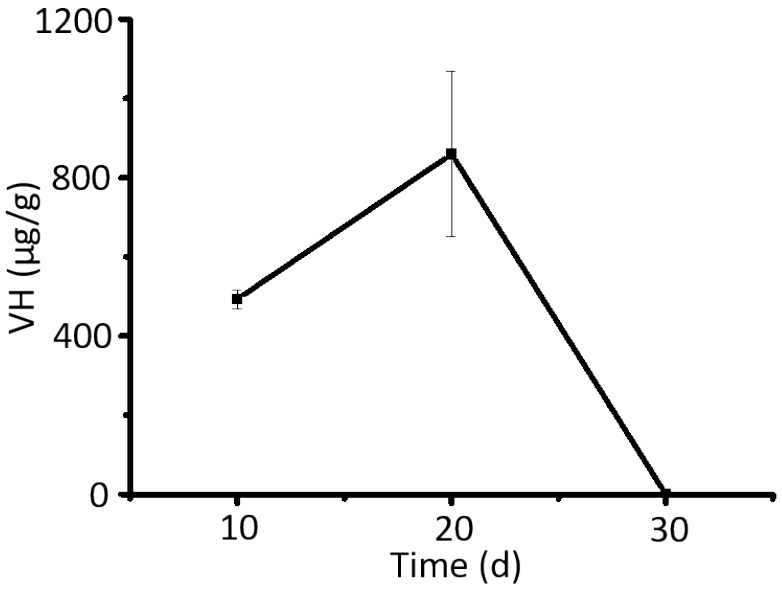

Figure s7. Drug release evaluation of VH-HA-CS/β-GP in bone tissue at 10, 20 and 30 days, respectively.

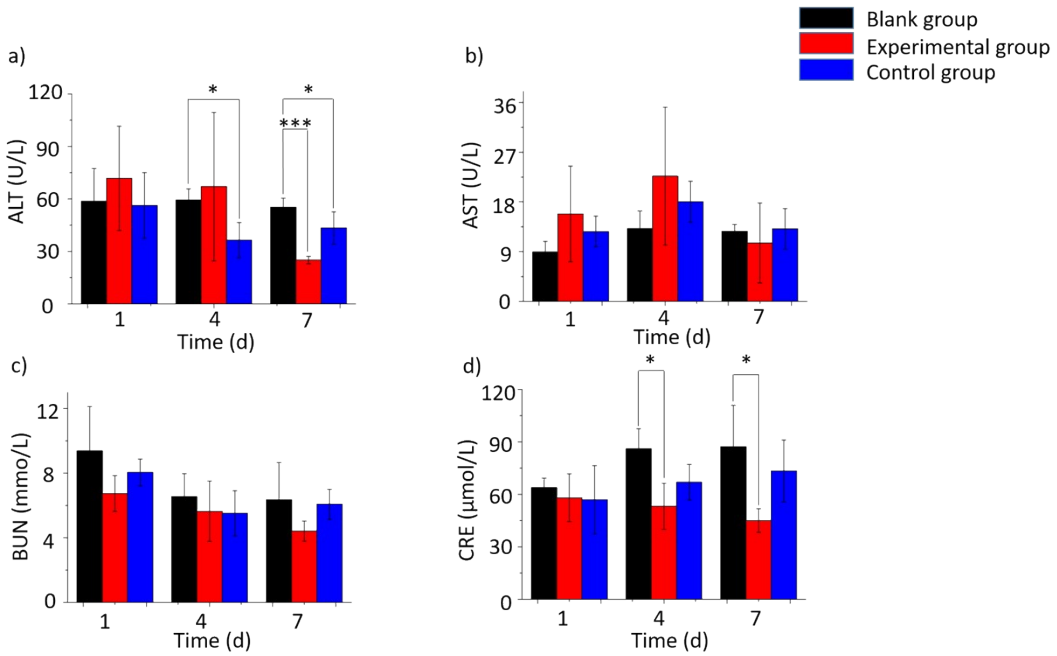

Figure s8. Hepatorenal toxicity of VH-HA-CS/β-GP@TCP scaffolds and TCP scaffolds with cefamezin injected intramuscularly for 1 week. a) The test of alanine aminotransferase (ALT) in blood. b) The test of aspartate aminotransferase (AST) in blood. c) The test of blood urea nitrogen (BUN). d) The test of serum creatinine (SCr) in blood.